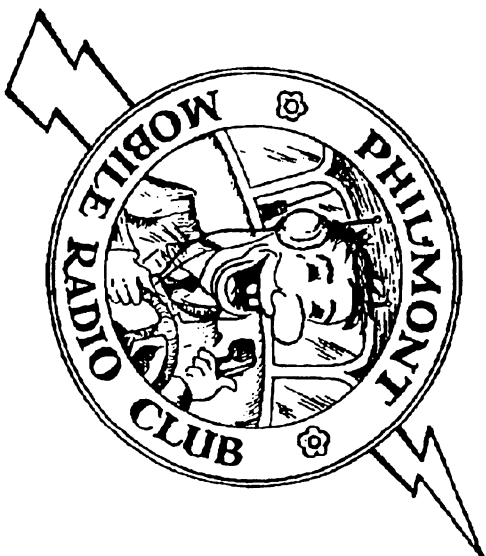


FIRST CLASS MAIL

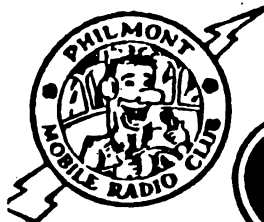


THE PHILMONT MOBILE RADIO CLUB, INC.
2113 EDGEHILL DRIVE, FURLONG, PA 18925

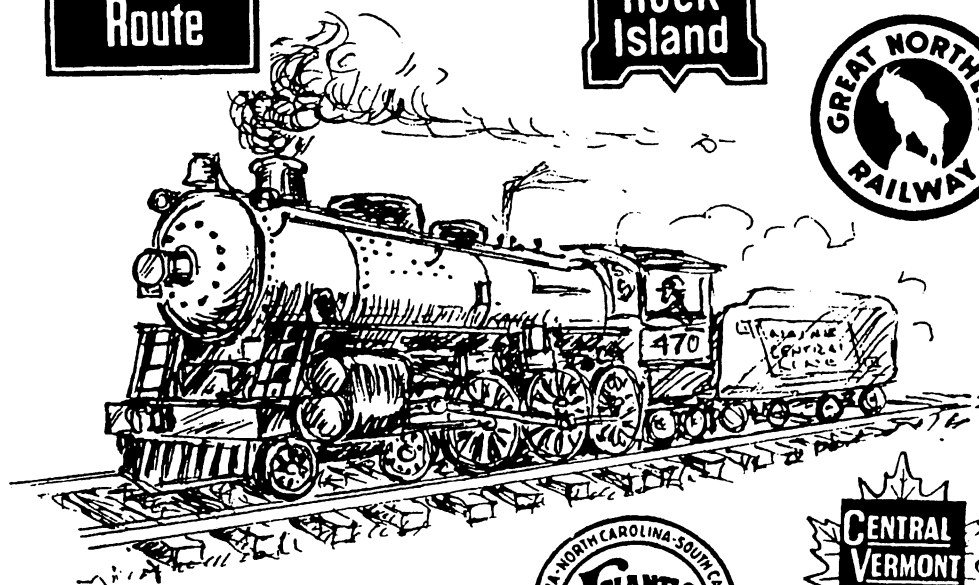
A Publication of

THE BLURB

PHILMONT MOBILE RADIO CLUB
W3RQZ • W3TKQ • W3QV



BLURB

September 1991


STEAM COMES BACK!

is published monthly by, and for, the members of The PHIL-MONT MOBILE RADIO CLUB, INC. whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. Copying and quoting is permitted with a credit line. We gladly exchange publications with other amateur radio clubs; requests should be sent to the Editor. BLURB subscriptions are available to non-members for \$10.00 addressed to the Treasurer. The club meets at 7:30 PM on the first non-holiday WEDNESDAY of every month at The Franklin Institute Science Museum, 20th Street and the Benjamin Franklin Parkway, Philadelphia. Use the Winter Street (north side) entrance.

ALL VISITORS ARE WELCOME!

Amateur Radio License Examinations - the first non-holiday Thursday of every month
at The Franklin Institute Science Museum-
doors close at 6:30 PM-SHARP!

CLUB INFORMATION

24-Hour Information Number at W3TKQ - (215) 448-1139
Repeater frequencies: 147.03 (Bucks County input requires 131.8Hz PL)
444.80 MHz (186.2 Hz PL)
Simplex frequency: 147.51 MHz
Mailing Address: P.O. Box 88, Abington, PA 19001

STATIONS

W3QV - 147.03 MHz. Repeater - 8200 Ridge Avenue, Philadelphia, PA - Trustee W3BBB
W3RQZ - 1176 Old York Road, Abington, PA - Trustee W3VVS
W3TKQ - The Franklin Institute Science Museum, Philadelphia, PA - Trustee W3PWG
ALL LICENSED AMATEURS ARE WELCOME TO OPERATE W3TKQ.

OFFICERS

PRESIDENT: N3FVI, Bill Popovic, 343 Lemonte Street, Philadelphia, PA 19128 (215) 487-9472
VICE PRESIDENT: N3GLH, Brad Swanson, 6 Haws Lane, Apt. F2, Erdenheim, PA 19118 (215) 836-2475
SECRETARY: N2RM, Rob Moore, 9U Rose Rita Terrace, Hammonton, NJ 08037 (609) 561-4459
TREASURER: KB3IV, Ed Masarsky, 15 Poe Avenue, Wyncote, PA 19095 (215) 572-5238

DIRECTORS

W3BBB (92); KC2HX (92); AK2I (91); W3IIM (A); K3KUD (91); W3RM (A); W3UY (A)

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BLURB:	W3IIM	Net Control:	KB3IV	Special Events:	KA3EBC
Budget /Audit:	W3IIN	Program:	N3GLH	TVI	WA3AUN
Directory:	WB3KOJ	Publicity:	-----	VE Program:	ND3Q
DX:	WA3AUN	Refreshments:	N3FVI	W3TKQ:	W3PWG
Emerg. Coord.:	W3BBB			Welcome:	W3VVS

Special Liaison to The Franklin Institute Science Museum: AK2I

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N3DHI, WB3KOJ

Publisher/Typist: W3IIN

DEADLINE: To be assured of publication in the current month, all copy **MUST** be in the hands of the Editor at the Bored of Directors' Meeting!

NET SCHEDULE

SUNDAY	09:30	147.030	MHz FM	"SUNDAY MORNING 2 METER NET"
	10:00	28.993	MHz SSB	"10-ON-10 NET"
	10:20	3.993	MHz SSB	75 METER NET
TUESDAY	20:00	147.030	MHz FM	CW PRACTICE NET



APPLE BYTES

Don Gordon, WB3KOJ

SEPTEMBER BIRTHDAYS

02 Gregory Malone - N3FSC
03 Marian Fox - WA3YJR
06 Leonard N. Kovnat - WB3JUA
08 Allen F. Bubeck - K3GNM
13 Marge Concordia - (XYL WB3KAC)
15 Robert K. Freer - W3YLT
20 William Isherwood - KA2VTR
John H. Sims, Jr. - N3HML
John Spratt - N3ALW
21 Harold Fox - W3AA
23 Shelly Klein - K3QNX (XYL W3WXC)
26 Paul Lane Ives, Jr. - W3SMA
28 Millie Rulli (XYL WB3WOM)

HELP PHIL-MONT

Are you planning to join ARRL or renew your current membership?
Help Phil-Mont by joining or renewing through the club.
Contact KB3IV for the details.

MS 150 BIKE TOUR

City to Shore

Saturday and Sunday, September 21-22

Volunteers are needed to help with the two-day tour, which runs from the Garden State Race Track to Ocean City—returning on Sunday.

If you are able to help on ONE or BOTH days, or for more information, call Charlie, KA3EBC or Bill, N3FVI. Saturday-night accommodations will be provided in Ocean City.

[Editor's note: Charlie is our new "Special Events" chairperson.]

A PARODY FROM THE SOUTHLAND

Elmer "CW Man" Wolfhong

I served as a radio operator in the Navy during World War II. Much of my time was spent operating CW and I grew to love it. After returning home from the war, finding a job and starting a family my interest in two-way communications was gone.

I recently retired and would very much like to get a ham license, but the voice requirements are more than I can stand.

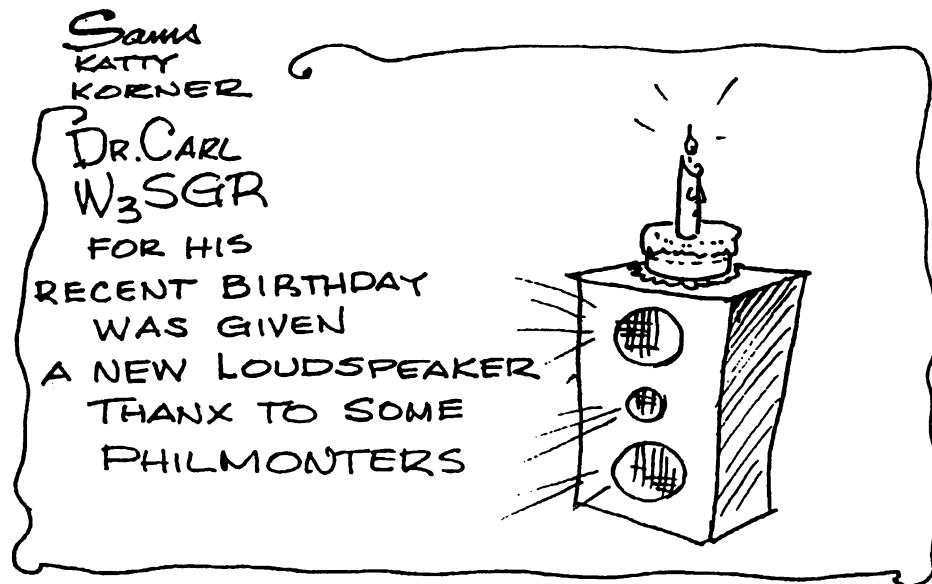
I have absolutely no interest in two-way voice communications of any kind. The two meter ham band is a joke; it has become nothing but a glorified CB band. With the rise of DX nets, HF voice takes very little skill and presents no real challenge in working DX. If I wanted to shoot fish in a barrel I would become a proficient archer, not a ham.

All I want is full CW privileges without the hassle of taking tests which give me nothing but phone privileges. The Technician license and the Advanced license do nothing for me, yet I am forced to take these tests to get complete access to the CW bands. If the no-coders do not have to learn the code to get voice privileges why should I have to take the Technician and Advanced tests to get cw privileges?

I do have a solution to the problem, however. Since amateur radio seems to be moving toward the "license with exception" such as the Technician-except-for-Code license, I propose the FCC create the Elitist license, or the Extra-Class-Except-for-Voice and the General-Except-for-Voice, the General-Except-for-VHF-Voice, the Extra-except-for-HF-Voice and the Extra-Except-for-VHF-Voice. The appropriate Technician or Advanced test could be given depending on the type of "license-with-exception" the would-be ham desires. The Certificate of Successful Completion of Examination could be enlarged from its current size to 11 x 17 to accommodate all the possibilities.

I guess with all the hubbub about creating a no-code license I felt someone, even a non-ham, should present a different viewpoint. Why is so much attention given to a form of communication that any person with half a brain, or less, can use? Voice operation, in my most modest opinion, is both easy and boring. I believe it is high time we code operators get the respect we deserve! A code-only license is not too much to ask. Viva CW!

Penn Wireless' X-MITTER



The PREZ SEZ

Bill Popovic, N3FVI

Not received by press time.

FRIEND OF PHIL-MONT SUCCUMBS

Stella Kello Tinaglia, after a long illness, on August 16, 1991. Residing in Wynnewood, PA, she was the wife of the late John J. Tinaglia, Esq., W3AWH, and by a prior marriage to the late Dr. William F. Kello. She is survived by five daughters, nine grandchildren, three sisters and one brother.

Stella was a frequent contributor to the John J. Tinaglia Memorial Fund for the benefit of W3TKQ, our amateur radio demonstration station at The Franklin Institute Science Museum. She will be fondly remembered by her many friends in Phil-Mont.

Contributions may be sent to "The Dr. William F. Kello Memorial Fund," Jefferson Medical College, 1025 Walnut St., Philadelphia, PA 19107, or the "Stella Tinaglia Fund," Rosa Lee Easter Elementary School, 4435 Weaver Rd. Houston Texas 77016

LOOKAHEAD

Sep 4 **General Meeting Program:**
DERRICK PITTS, VP
The Franklin Institute Science Museum
Sep 5 License Examinations
Sep 18 Directors' Meeting at
N2CYA & KC2HX's

Oct 2 **General Meeting Program:**
W3TKQ Sneak Preview
Oct 3 License Examinations
Oct 16 Directors' Meeting at
KA3AMO & N3FTC's
Oct 23 **W3TKQ Dedication**

Nov 6 **General Meeting**
OLE TIMERS' NIGHT
Nov 7 License Examinations
Nov 13 Directors' Meeting at
N3GLU & KB3IV's

CLUB INFORMATION

24 Hour Information Number at W3TKQ
(215) 448-1139

V.E. TEST LOCATIONS

Confirm all information, in advance, with the contact person. Licensed applicants must bring their original license and one photocopy of it. All applicants, including children, must present positive ID. Also bring the original of any Certificate of Successful Completion needed to prove current status. The ARRL VEC's 1991 test fee is \$5.25; there is no charge for a Novice test.

BELLMAWR, NJ
Monthly, 3rd Thursday
Bill Helmatag
(609) 546-7710

CENTER CITY PHILA.
Monthly, 1st Thursday
Dusty Rhoads, ND3Q
(215) 482-0386
(215) 879-0505

BRYN MAWR
Bob Haase, W3SA
(215) 293-1919

RICHBORO
Dave Munson, NM3K
(215) 788-7515

TELFORD
Monthly, 3rd Monday
Warren Erdman K3ZXQ
(215) 679-5764

LEVITTOWN
Monthly, 1st Thursday
Dave Heller, K3TK
(215) 946-1040
(215) 736-3333

WARMINSTER
Last Wed., Odd Months
Tom Michaud, WA3TQJ
(215) 343-3494

HAMFESTS

Sept 8 **GAITHERSBURG, MD**
Foundation for Amateur Radio

Sept 15 **PENNSAUKEN, NJ**
South Jersey RA

Sept 21-22 **YORK, PA**
York ARA

Oct 6 **GARDEN STATE RACETRACK**
Pack Rats

Oct 13 **OCEANPORT, NJ**
Shore Area ARCs

Oct 20 **BENSALEM, PA**
Penn Wireless Assoc.

Oct 27 **SELLERSVILLE, PA**
RF Hill ARC

SOUTH JERSEY RADIO ASSOCIATION



43rd ANNUAL HAMFEST / COMPUTER Show

1991 — THE 75th ANNIVERSARY OF THE SOUTH JERSEY RADIO ASSOCIATION

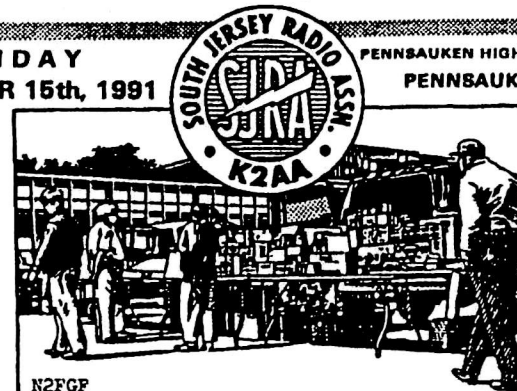
SUNDAY
SEPTEMBER 15th, 1991

HAM DEALERS

VEC-HAM
LICENSE TESTING
ALL CLASSES
REGISTRATION AT
9:30 A. M.

PLENTY OF FREE
PARKING

TABLE AND
TAILGATE SALES



PENNSAUKEN HIGH SCHOOL PARKING LOT
PENNSAUKEN, NEW JERSEY

COMPUTER DEALERS

GIGANTIC
SWAP SHOP

REFRESHMENTS
AND FOOD
AVAILABLE IN THE
CAFETERIA

EYEBALL QSO's
WITH YOUR
FRIENDS

RAIN OR SHINE - 8:00 A.M. TO 3:00 P.M.

K2AA TALK-IN
S J R A REPEATER
145.290 (—600)

DOOR PRIZES

Prizes will be awarded throughout the day. The three (3) main Door Prizes will be drawn at 1:00 P.M. The winners of the top three (3) prizes need not be present to win. Winners will be notified only if ticket contains winner's Call, Name & Address and Phone Number

TICKETS

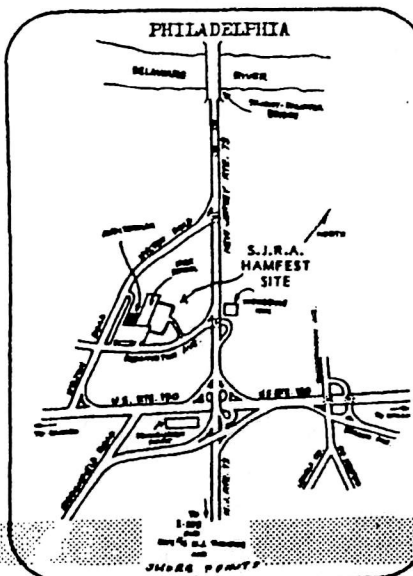
Advance Sale	\$ 3.50
At the Gate	\$ 4.00
Tail Gate (Per Space)	\$ 5.00

Tailgaters must purchase an Admission Ticket

Send Check or Money
Order along with a
S.A.S.E. to:

TERRY MURPHY N2JSB
452 Wilson Avenue
Lindenwold NJ 08021
609 - 627 - 5984
609 - 627 - 1010

Machine



SCANNERS: Static-Charged Sound and Fury

CompuServe Magazine

Much larger than its cadre of Soviet-watchers is HamNet's crew of people-watchers. Right now, forum members who specialize in scanner radios are finding themselves a lot more controversial than their shortwave and ham counterparts. The reason? They can listen, not just to ships and shuttles, but to you—in your car, your kitchen, even your bedroom.

Scanners can pick up cellular phones, cordless phones and even the nursery monitor that listens while baby sleeps. Stories of scanners picking up private conversations, business deals and adult bedroom activities crop up in the news and even in forum message threads. Mix this controversy with equal parts of hubbub over scanning law-enforcement frequencies, and you have a good idea of the furor that sometimes reigns in HamNet's Scanners Section. Is the Federal Communications Commission going to ban the reception of frequency bands restricted to law-enforcement users? Will the FBI crack down on owners who listen-in on private telephone conversations?

Not as far as we could tell from several calls to Washington. That doesn't mean, though, that CompuServe members aren't up in arms at even the hint of tighter controls.

The whole debate is a smoke screen, Sam Ricks, a former long-haul truck dispatcher, believes. "The controversy over scanners eavesdropping on baby monitors and phones is really just a gimmick to sell scanners," he says. "The real controversy is scanner censorship."

Moving to restrict access to certain police and fire department bands, Ricks says, would limit the appeal of scanners among people who make up the "hard-core" scanner users. You can't sell scanners if people can't listen to police and fire department calls, so they try marketing a different angle: eaves-dropping.

"Few people bother to monitor cellular calls, cordless phones or baby monitors," he

says. "It's too boring."

Browsing the HamNet message boards tends to bear Ricks out. Forum members are much too busy listening to Air Force One, railroad engineers, space shuttle astronauts, air-traffic controllers, press vehicles, military in-flight refueling operations and the Secret Service to sit by a scanner and hope for some heavy breathing.

Aerospace computer consultant Tom Roach, for instance, tunes in on helicopter pilots and the Navy's Blue Angel flight demonstration team. "Their voices sound strange as they pull Gs," he says, "Very clipped and tense." On the ground he settles back to listen in on air-traffic controllers and one of his favorites, airline ground crews. "I like to listen to what they say about the passengers at the ticket gates—and some of the lies they tell about schedules and luggage."

HamNet Files to Scan

Browse HamNet's Library 2, "Scanning Library," to find the radio frequencies of Illinois McDonald's restaurants or the Arizona forest service, and window shop for scanners by downloading product reviews and specification write-ups.

If you want to maximize your radio's reach, these one-of-a-kind library offerings can help you do just that:

- Tips on monitoring military satellites, including how to build an antenna. File MILSAT/binary or MILSAT/TXT.
- Want to buy a used scanner? Here's what you'll need to know before you make a deal. File USEDSC.TXT.
- Dozens of European radio stations that operate via satellite and how to pick them up. File SATRAD.TXT.
- Frequencies for cable and other TV broadcasters so you'll never have to miss your favorite reruns. File TVAUD.TXT/binary.

MINUTES

AUGUST GENERAL MEETING

Not received by press time.

76th MONTHLY VE SESSION STATISTICS AUGUST

9 candidates pass 10 elements
3 new amateurs plus 1 upgrade

VE team members:

Dusty Rhoads, ND3Q, Chairman

Ted Lada, N3FTZ; Niel Leone, W3FZR; Chris Brady, N3IEI;

Vince Braxton, K3SNZ; Bob Forrester, NS3Z

AMATEUR LICENSE EXAMS HELD ON THE FIRST NON-HOLIDAY THURSDAY OF EVERY MONTH

Registration begins at 6:00 PM

Doors close at 6:30 PM *sharp*

THE FRANKLIN INSTITUTE SCIENCE MUSEUM

For Information Call ND3Q at

(215) 482-0386 or 879-0505

Accessible by the handicapped.



THE W 3 T K Q REPORT

by
Jake Kovalchek,
AK2I

...ONLY \$14.25!

During the course of construction of the new station, I found it imperative that I sit down and prepare a budget of sorts for the station, so that I could determine our course and make necessary adjustments when necessary. It didn't take long to see that all of the things I wanted to do were going to cause a real problem, for, as promising as the donations have been to date, we are still in need of additional funds. For example, as of this writing, my checkbook has a little more than \$2,000 dollars, and we need \$3,639 in additional supplies and equipment. That's a deficit of \$1,639 with about ten weeks to go before the dedication ceremony.

Let me put it more succinctly—we need a donation from each member of the Phil-Mont Mobile Radio Club. I don't expect that each member will be able to afford \$100, but certainly each member could afford to send me \$5 or \$10. You spend far more than that on your other incidentals throughout the week. I would like to think that each member has a desire to see the station in full operation, and I also think that each member has a responsibility to the future of amateur radio to do just that.

Here it is, as direct as I can be: One hundred and fifteen members have not donated at all. If each of these members was to share in the \$1,639 deficit, the total per member would be only \$14.25 each.

The club totals 137 active members, and out of this total, 19 have made substantial donations. This represents about 14 percent of the total membership. Some will say this is about normal for any club, but this is Phil-Mont, and we are not a normal, run-of-the-mill, club. We are Phil-Monters, and we have undertaken a project that each will be proud of, both now and in the future.

Please, take the time right now and send me a check for the \$14.25, and take your place in history.

[Even 'PXY can afford that! -Ed]

NEW HOPE & IVYLAND RAIL ROAD



CENTENNIAL CELEBRATION

The New Hope & Ivyland Rail Road brings steam train travel back to Bucks County for its 100th Anniversary Year.

Climb aboard for a historic train adventure. Watch the scenic countryside roll by on your 9-mile, 50-minute narrated round trip between New Hope and Lahaska.

Discover the Freight House Gift Shop's exciting selection of railroad souvenirs.

1991 OPERATING SCHEDULE

Date	Day	Train Times
June 22 through September	Monday-Friday	10, 11, 12, 1, 2, 3, 4, 5
	Saturday	10, 11, 12, 1, 2, 3, 4, 5, 6
	Sunday	12, 1, 2, 3, 4, 5
October	Monday-Friday	11, 12, 1, 2, 3
	Saturday	10, 11, 12, 1, 2, 3, 4
	Sunday	12, 1, 2, 3, 4
November	Monday-Friday	12, 1, 2, 3
	Saturday	11, 12, 1, 2, 3
	Sunday	12, 1, 2, 3
(Closed Thanksgiving Day)		

December Christmas Trains

The Railroad adheres to this timetable as closely as possible, but reserves the right to alter departure schedule and substitute motive power to meet operating conditions.

Fares: Senior Citizens \$5.00
Adults \$6.50, Children (3-11) \$3.25

Centennial Celebration of Steam Passenger Service, June 22 through June 30

215-862-2332
P.O. Box 634 • New Hope • PA 18938

Oh Oh... more RFI problems!

A Mouse Without a Tail

MouseMan (Logitech Inc.) is a cordless mouse for IBM computers. The mouse has a built-in radio transmitter and a separate receiver that can be connected to either a serial port or a PS/2 mouse port. Reviewer Christy Brothers found the MouseMan to be of high quality but relatively expensive. She says it was larger than most mice and didn't fit her hand comfortably, but that she appreciates its ability to broadcast even if the receiver is covered with books and papers. *CompuServe Magazine*

CLASSES STARTING

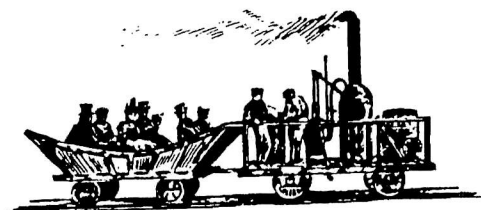
The Warminster Amateur Radio Club will be offering classes for persons interested in obtaining an Amateur Radio Operator license, or upgrading their privileges. Instructors will lead sessions for Novice, the new code-free Technician, and General class licenses. A series of hands-on workshops will also be offered, which will include instruction on digital communications, antenna design, equipment testing and repair, and other topics of general interest. All classes are free, but participants are responsible for purchasing their own materials.

Classes will run for 12 consecutive Tuesday evenings from 7:30 to 9:30 P.M., beginning September 10. Late registration will be accepted on a space-available basis. The classes will be held at the Warminster Recreational and Educational Center (WREC), located on Little Lane in Warminster. Classes will end just prior to an Amateur Radio license examination session that will be offered by the club on Wednesday, November 27.

For additional information contact: Jim Yeager, K3EBZ, at (215) 672-5487 between 7 and 9 P.M.



Same
OTHER
CORNER



MOHAWK & HUDSON'S 1st ENGINE 1829



LOUISVILLE &
NASHVILLE R.R.



DELTA
ROUTE



Hugh Turnbull, W3ABC, and watsisname, at the ARRL Atlantic Division's conference.

Put Up Or Shut Up Time

A Message From Gordon Beattie, N2DSY

OK, we all have family, friends, and others who have told us that, "I can't do the code. If they would only drop the CW requirement I would get my ham license."

Well boys and girls, it's time to tell these folks to "Put up or shut up!" That's right and it's YOUR responsibility to them and the amateur radio community to help them through the process.

This means that you'll not only tell them about the change in the rules, but that you'll be helping them get "settled-in" as a ham. In order to make this happen you should do the following:

1. Inform them of the change in rules.
2. Make sure that they get a study guide.

ARRL will have a new study guide available as you read this.

3. Help them by answering questions. This can even be done by asking them a couple of questions during the course of other activities, phone conversations, etc. (The message here is don't use the excuse of "we couldn't get together" to justify why the person didn't get your help.)

4. Find out test times and set goals with the prospective ham.

5. Make arrangements for a radio by either checking out the local new and used market, or by lending the new ham a radio. Do this before the license comes in the mail! Go with them to purchase it! They probably don't know what they're looking at, so help them evaluate their needs and operating conditions and match it to a radio.

6. Here's a really wild suggestion: LEND HIM/HER YOUR RIG! You made a good choice in equipment—let them see why you like it. After all, many of us have spare

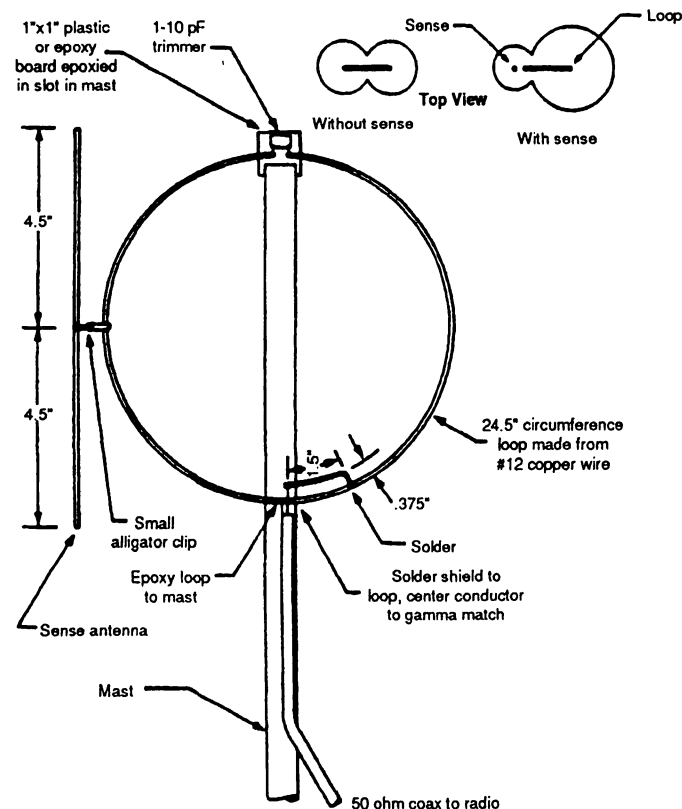
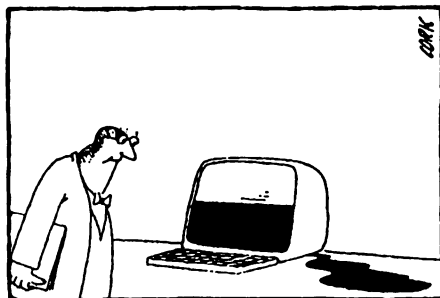
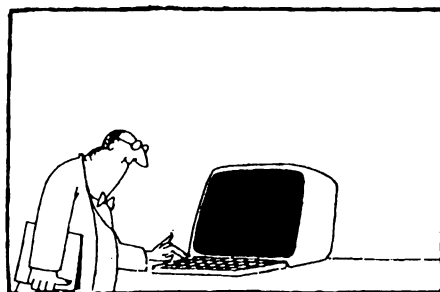
equipment to lend that we keep on the shelf. Why not share it?

7. Tell them about radio club meetings and make sure they get there. Meet for supper or plan to grab a brew or ice cream after the meeting.

8. Help them get their equipment installed. Nothing is worse than not having the required parts to make the shack work out. Also, simplify the process by providing some of the annoying incidentals to your new ham from the vast stores of your junk-box. Things like connectors, coax, etc. are good small, but essential, items that you could provide as a way of saying, "Congrats and welcome to the club!"

ARRL Field Forum via The BRATS' MILLIWATT

W3BBB prepares for his annual computer session.



nals, hunt the peaks. For strong signals, hunt the nulls (they should be sharper and at exact right angles to the peak).

Now clip the sense antenna to the side of the loop. If you rotate the loop, you should notice that the signal peak on the side OPPOSITE the sense antenna is much higher on the meter. (See patterns in upper right corner of the illustration). When oriented for the

higher peak, the vertical rod will be on the side AWAY from the hidden "T." However, the addition of the sense antenna will detune the loop, decreasing its sensitivity by several dB. This should be no problem unless the signal is extremely weak.

Thanks to BANDBITS, The Peoria Amateur Radio Club
The HILLTOPPER

A SIMPLE DF LOOP THAT'LL SNOOP!

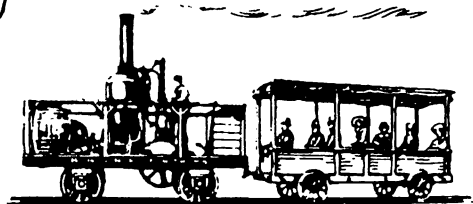
Despite the many specialized DF units now available, many fox hunters still like to use their directional antennas and S-meters. What this method lacks in convenience is made up for by simplicity and the ability to hunt very weak signals with high gain antennas. However, the loop antenna described in this article doesn't necessarily have high gain, but it is sensitive, easy to build and operate, and el cheapo to make. Components consist of a broomstick, a 10 pfd. trimmer capacitor, a small piece of perf board, six feet or so of coax, a coax connector, an alligator clip, five-minute epoxy, and about three feet of #12 AWG solid copper wire. A sealed piston trimmer works best for

the tuning capacitor, but an air or ceramic type can be used.

Mount the capacitor to the perf board. Form the solid wire into a loop (7.8" diameter) and connect the ends to the capacitor. Secure the loop to the perf board for support. Mount the loop to the broomstick with the epoxy. Connect the coax shield to the loop at the point exactly opposite the capacitor. Connect the center conductor to the gamma match as shown. Do NOT connect the vertical sense antenna yet.

To tune the antenna, get OUT IN THE CLEAR, and hold it end-on in the direction of a known signal source (repeater or HT). Tune the capacitor for maxi-weak (sic) sig-

Sam's
CORNER



BALTIMORE & OHIO'S TOM THUMB



IS YOUR STATION REALLY GROUNDED?

AF5R

Every year radio stations are hit by lightning, sometimes with dire results. First let us look at some facts:

1. [Our geography], except for the areas around the ocean or swampy land, has poor ground conductivity.
2. Stroke currents will vary between 5,000 to 50,000 amperes. Some have been recorded at over 300,000 amps.
3. The voltage at a point of interest, say the antenna terminal on your rig, will be multiplied by the surge impedance between the terminal and ground.
4. CONCLUSION: The ground connection must not only have minimum resistance, but also minimum inductance.

So lets look at an example; you have gotten some nice #6 copper wire, but it is going to take 30' of that nice #6 to get a good ground. Thirty feet of #6 has only .012 ohms of dc resistance, boy ain't that nice, but it has an inductance of 10 uh—which at 1 MHz is 63 ohms of reactance, and at 100 MHz, it might as well be an open circuit. Hey, it could even act as an antenna, and could add to an interference problem.

The ARRL handbook has the formula to determine the inductance of various diameter wires and strap widths. The fact is, inductance per unit length is approximately in inverse proportion to the surface area.

Now, as far as grounding is concerned, there are two schools of thought. One, deep rods driven in the ground (easy around here). The other is a series of wires buried a few inches. The former is really okay for RFI, but the latter has found greater acceptance by antenna people, because it will distribute the currents over a wider area.

So the bottom line is to get a good ground, use a low DC and reactive connection. Then make sure all of your equipment is grounded to one conductor. HEY, WAIT A MINUTE—doesn't the power and light company have the neutral grounded right to the house, either to a water pipe or a ground rod?

Why can't we ground everything to an outlet socket?

Oh what fools we mortals become when we try to get something for nothing.

Without going through the whole mechanics of the problems of using that ground, let me reduce it to the following: Even with all of the power off in your house, there still could be current flowing through your AC ground. This could be coming from your next door neighbor's house, because of unbalanced loads which produce an induction field in your house wiring. This could be the source of all kinds of interference, such as switching transients from motors, lamps, or hash, which is synced to the AC cycle. Plus local thunderstorms can create a ten to fifty volt transient at the ground pin of a wall outlet.

Most ham rigs no longer come with a three wire cord, but the instruction books usually tell you to ground the gear. If yours has a three wire cord, you could use an adapter to isolate the ground pin.

One thing that I would recommend, is the use of varistors at the wall outlet, or distribution strip to your station. They are not expensive—less than a dollar each. Use three of them; one across the line, and the other two from each line to the ground.

Sussex ARA newsletter THE KEY

1991

SEPTEMBER

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 2M NCS AK2I 10M NCS ANYONE 75M NCS W3PWG	2 LABOR DAY	3 CODE PRACTICE NET resumes Sept 17	4 GENERAL MEETING at The Franklin Institute Refreshments at 7:00 PM Meeting starts at 7:30	5 LICENSE EXAMS at The Franklin Institute Registration begins at 6:00 Doors close at 6:30 PM <i>sharp!</i>	6	7 Amateur Radio Public Awareness Day
8 2M NCS N2FTY 10M NCS ANYONE 75M NCS W3AOA <i>Gaithersburg Hamfest</i>	9 <i>Rosh Hashanah</i>	10 CODE PRACTICE NET resumes next week!	11	12	13	14 <i>Star Spangled Banner 1814</i>
15 2M NCS K3JJO 10M NCS ANYONE 75M NCS W3RCE <i>Pennsauken Hamfest</i>	16	17 CODE PRACTICE NET at 8 PM <i>Constitution Signed 1787</i>	18 DIRECTORS' MEETING at N2CYA & KC2HX's <i>Yom Kippur</i>	19	20 <i>KDKA began daily news program - 1921</i>	21 <i>MS 150 bike race-day 1 York Hamfest—day 1</i>
22 2M NCS NS3Y 10M NCS ANYONE 75M NCS AK2I <i>MS 150 bike race-day 2 York Hamfest—day 2</i>	23 <i>Autumnal Equinox</i>	24 CODE PRACTICE NET at 8 PM	25	26	27 <i>Native American Day</i>	28
29 2M NCS W3BBB 10M NCS ANYONE 75M NCS W3HFY	30		<i>The narrower the mind, the broader the statement.</i>			